

Remarks

Restriction Requirement

Primary Examiner has restricted the instant application to two Groups, Groups I and II. Applicant provisionally elects Group II to include all Claims 61-68, 70, 72, 74, and 76 drawn to a method of using SELF non-thermal fields for biotechnological gene modification.

Applicant respectfully traverses the restriction requirement as it relates to all of Claims 21-76. Applicants respectfully submit that unity of invention is present among all of Claims 21-76. Claims 21-60, 69, 71, 73, and 75 (Group I) are drawn to a means or apparatus for selectively interfering with pathological cell survival processes in vitro and in vivo. The method of using SELF non-thermal fields claimed in Claims 61-68, 70, 72, 74, and 76 (Group II) utilizes the means and apparatus claimed in the Group I claims. Specifically, the SELF non-thermal fields utilized in the methods of the Group II claims are generated by the means claimed in the Group I claims.

37 C.F.R. § 1.475 (b) (2) states that unity of invention exists when the claims are drawn to the combination of a product and process of use of said product. Applicant respectfully submits the claims of Group II drawn to a method of using SELF non-thermal fields for biotechnological gene modification utilize the means of selectively interfering with pathological cell survival processes that are claimed with the means claims of Group I. Applicant respectfully notes that the specification describes the "concept underlying the method according to the invention is that SELF fields interfere with cell signaling sustaining cell pathological behavior inside pathological cells, i.e. on redox signaling through free radicals, thus restoring the cell survival process, i.e. inducing directly or indirectly apoptosis through a modification of a p53 gene expression." (See specification page 6, lines 27-33.) Thus, it can be seen that the SELF non-thermal fields applied to the p53 gene to modify its expression to interfere with the behavior of pathological cells are applied using the means claimed in the claims of Group I. This demonstrates how the combination of a means or product and method of using that means or product are combined to achieve unity of invention in the instant application. Applicant respectfully requests that the restriction requirement be withdrawn and all claims be prosecuted together.

Amendment to Claims 42-53

Applicants have amended Claims 42-53 to correct clerical errors in the original claims filed in the Preliminary Amendment filed December 22, 2000. The amendments to the claims show the correct claims from which the amended claims depend. In summary, Claims 42, 45, 48, and 51 depend from Claim 21, not Claim 1; Claims 43, 46, 49, and 52 depend from Claim 22, not Claim 2; Claims 44, 47, 50, and 53 depend from Claim 23, not Claim 3.

Conclusion

Based on the remarks above, Applicants courteously request reconsideration of the restriction requirement and entry of the amendments to Claims 42 through 53.

Respectfully submitted,



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42. Apparatus as recited in Claim 21 [1] wherein at least a portion of said working environment is defined by walls permeable to said fields.
43. Apparatus as recited in Claim 22 [2] wherein at least a portion of said working environment is defined by walls permeable to said fields.
44. Apparatus as recited in Claim 23 [3] wherein at least a portion of said working environment is defined by walls permeable to said fields.
45. Apparatus as recited in Claim 21 [1] wherein said means for generating said S and/or ELF fields comprise at least a first and a second coil respectively surrounding at least a portion of said working environment, said means for modulating providing to said coils DC and/or AC current respectively.
46. Apparatus as recited in Claim 22 [2] wherein said means for generating said S and/or ELF fields comprise at least a first and a second coil respectively surrounding at least a portion of said working environment, said means for modulating providing to said coils DC and/or AC current respectively.
47. Apparatus as recited in Claim 23 [3] wherein said means for generating said S and/or ELF fields comprise at least a first and a second coil respectively surrounding at least a portion of said working environment, said means for modulating providing to said coils DC and/or AC current respectively.
48. Apparatus as recited in Claim 21 [1] wherein said means for generating said S and/or ELF fields comprise at least a first and a second coil coaxial to each other, said working environment being placed between said first and a second coil and said means for modulating providing to said coils DC and/or AC current respectively.

49. Apparatus as recited in Claim 22 [2] wherein said means for generating said S and/or ELF fields comprise at least a first and a second coil coaxial to each other, said working environment being placed between said first and a second coil and said means for modulating providing to said coils DC and/or AC current respectively.

50. Apparatus as recited in Claim 23 [3] wherein said means for generating said S and/or ELF fields comprise at least a first and a second coil coaxial to each other, said working environment being placed between said first and a second coil and said means for modulating providing to said coils DC and/or AC current respectively.

51. Apparatus as recited in Claim 21 [1] wherein means are provided for creating through said working environment a static electric field, or a low frequency variable electric field up to 1000 Hz, having intensity up to 20 kV/m.

52. Apparatus as recited in Claim 22 [2] wherein means are provided for creating through said working environment a static electric field, or a low frequency variable electric field up to 1000 Hz, having intensity up to 20 kV/m.

53. Apparatus as recited in Claim 23 [3] wherein means are provided for creating through said working environment a static electric field, or a low frequency variable electric field up to 1000 Hz, having intensity up to 20 kV/m.